

Notice of Allowability

Application No.

10/632,307

Examiner

Patrick J. Connolly

Applicant(s)

CHOVAN ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 17 December 2004.
2. ☒ The allowed claim(s) is/are 4-20.
3. ☒ The drawings filed on 01 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Gregory D. Tooley, Jr.
Supervisory Patent Examiner

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on December 17, 2004 disclaiming the terminal portion of any patent granted on this application that would extend beyond the expiration date of U.S. Patent No. 6,714,306 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

Claims 4-20 allowed.

The following is an examiner's statement of reasons for allowance:

As to claims 4, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of detecting airborne acoustic waves including: projecting at least one coherent light beam along a selected line associated with said region, wherein the airborne acoustic waves traverse said line and modulate said beam; and, intercepting said coherent light beam to provide an electrical signal representative of the airborne acoustic waves to be detected, in combination with the rest of the limitations of claim 4.

As to claim 13, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of detecting airborne acoustic waves including: reflecting a projected beam back to a projecting transceiver/reflector using other transceiver reflectors to enable said projecting transceiver/reflector to detect modulation on said reflected beam due to acoustic wave interaction on said beams, in combination with the rest of the limitations of claim 13.

As to claim 15, the prior art of record, taken alone or in combination, fails to disclose or render obvious a sensing system for sensing airborne pressure waves including: a laser for

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projecting a beam through said airborne pressure waves; a reflector positioned to receive and reflect said projected beam; and, a detector for receiving said reflected beam and providing at least one output signal representative of said airborne pressure waves, in combination with the rest of the limitations of claim 15.

As to claim 19, the prior art of record, taken alone or in combination, fails to disclose or render obvious a sensor for optically sensing acoustic waves including: a laser for projected a beam into said area to cause said airborne acoustic waves to phase modulate said coherent beam; an optical detector responsive to said modulated beam and said projected beam to provide a heterodyne signal; and, a phase detector for receiving said heterodyne signal, detecting the airborne acoustic induced phase variation and providing an electrical signal representative of the acoustic waves, in combination with the rest of the limitations of claim 19.

As to claim 20, the prior art of record, taken alone or in combination, fails to disclose or render obvious a sensor for sensing airborne acoustic waves including: a laser for projecting a beam to cause said airborne waves to modulate said beam; and, means for receiving said modulated beam and to provide a signal indicative of said airborne waves, in combination with the rest of the limitations of claim 20.

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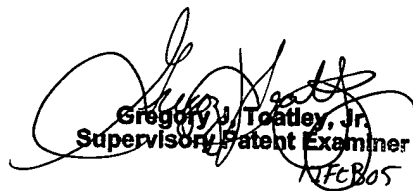
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Connolly whose telephone number is 571.272.2412. The examiner can normally be reached on 9:00 am - 7:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571.272.2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

pjc
02.17.2005


Gregory J. Toatley, Jr.
Supervisory Patent Examiner
NFCBOS